```
chain nodes :
10 23 24 25 26
ring nodes :
1 2 3 4 5 6 7 8 9 11 12 13 14 15 16 17 18 19 20 21 22 28 29
30 31 32 33
chain bonds :
1-11 2-23 6-10 10-26 13-30 15-21 23-24 23-25
ring bonds :
1-2 \quad 1-5 \quad 2-3 \quad 3-4 \quad 4-5 \quad 4-6 \quad 5-9 \quad 6-7 \quad 7-8 \quad 8-9 \quad 11-12 \quad 11-16 \quad 12-13 \quad 13-14 \quad 14-15
15-16 17-18 17-22 18-19 19-20 20-21 21-22 28-29 28-33 29-30 30-31 31-32
32-33
exact/norm bonds :
1-2 1-5 1-11 2-3 2-23 3-4 6-10 10-26 11-12 11-16 12-13 13-14 13-30 14-15 15-16 15-21 17-18 17-22 18-19 19-20 20-21 21-22 23-24 23-25 28-29 28-33 29-30 30-31 31-32 32-33
normalized bonds :
4-5 4-6 5-9 6-7 7-8 8-9
isolated ring systems :
containing 1 : 11 : 17 :
```

L3 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2007:1176627 CAPLUS DOCUMENT NUMBER: 147:440304

Treatment of prostate cancer, melanoma or hepatic TITLE:

INVENTOR(S):

Treatment of prostate cancer, melanoma or hepat cancer
Yaquchi, Shinichi; Koshimizu, Ichiro; Yoshimi,
Hisashi, Matsuno, Toshiyuki; Watanabe, Tetsuo;
Tsuchida, Yoshio; Saitoh, Kenichi
Zenyaku Kogyo Kabushiki Kaisha, Japan
U.S. Pat. Appl. Publ., 8pp.
CODEN: USXXCO
Patent

PATENT ASSIGNEE(S):

DOCUMENT TYPE: DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION: English

PATENT NO. KIND DATE APPLICATION NO. DATE A1 20071018 US 20070244110 PRIORITY APPLN. INFO.: US 2006-404078 US 2006-404078 20060414

CTHER SOURCE(S): MARPAT 147:440304

IT 866392-54-3P 866392-55-4P 952481-20-8P
952481-22-0P 952481-23-1P 952481-24-2P
RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (treatment of prostate cancer, melanoma or hepatic cancer)

RN 866392-54-3 CAPLUS
CN 1H-Benzimidazole, 2-(difluoromethyl)-1-[4-[(2R,6S)-2,6-dimethyl-4-morpholinyl]-6-(4-morpholinyl)-2-pyrimidinyl]-4-methoxy-, rel- (CA INDEX NAME)

Relative stereochemistry.

ANSWER 1 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN (Cont (4-morpholiny1)-2-pyrimidiny1]-4-methoxy- (CA INDEX NAME) (Continued)

RN 952481-20-8 CAPLUS CN 1H-Benzimidazole, 2-(difluoromethy)-1-1-(4,6-di-4-morpholinyl-1,3,5-triazin-2-yl)-4-methoxy- (CA INDEX NAME)

952481-22-0 CAPLUS

932481-22-0 CAPLUS
HH-Benzimidazol-4-ol, 2-(difluoromethyl)-1-[4-[(2R,6S)-2,6-dimethyl-4-morpholinyl]-6-(4-morpholinyl)-2-pyrimidinyl]-, 4-acetate, rel- (CA CN

INDEX NAME)

Relative stereochemistry.

ANSWER 1 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)

952481-23-1 CAPLUS Carbonic acid, 2-(difluoromethyl)-1-[4-(2,2-dimethyl-4-morpholinyl)-6-(4-morpholinyl)-2-pyrimidinyl]-1H-benzimidazol-4-yl methyl ester (CA INDEX NAME)

952481-24-2 CAPLUS Carbonic acid, 2-(difluoromethyl)-1-[4-[(2R,6S)-2,6-dimethyl-4-morpholinyl)-6-(4-morpholinyl)-2-pyrimidinyl]-1H-benzimidazol-4-yl ethyl ester, rel- (CA INDEX NAME)

Relative stereochemistry.

L3 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)

L3 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2006;945639 CAPLUS DOCUMENT NUMBER: 145:328368

TITLE:

145:322368
Immunosuppressive agent and anti-tumor agent comprising heterocyclic compound as active ingredient Haruta, Kazuhiko; Yaguchi, Shinichi; Matsuno, Toshiyuki; Tauchida, Yoshio; Watanabe, Tetsuo; Yoshioka, Kimitomo; Yui, Ryogo Zenyaku Koqyo Kabushikikaisha, Japan PCT Int. Appl., 102pp.
CODEN: PIXXD2
Fatent
Janaese
1 INVENTOR(S):

PATENT ASSIGNEE(S):

DOCUMENT TYPE:

DOCUMENT TIPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

									APPLICATION NO.											
									WO 2006-JP304937											
	W:	AE, AG,		AL,	AM,	AT,	AU,	AZ,	BA,	BE	3,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,		
		CN,	co,	CR,	CU,	CZ,	DE,	DK,	DM,	D2	Ζ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,		
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS	3,	JP,	KE,	KG,	KM,	KN,	KP,	KR,		
		KZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY	۲,	MA,	MD,	MG,	MK,	MN,	MW,	MX,		
		MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PF	∃,	PL,	PT,	RO,	RU,	SC,	SD,	SE,		
		SG,	SK,	SL,	SM,	SY,	TJ,	TM,	TN,	TF	۸,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,		
		VN,	YU,	ZA,	ZM,	ZW														
	RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EF	Ξ,	ES,	FI,	FR,	GB,	GR,	HU,	IE,		
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		CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	MI	.,	MR,	NE,	SN,	TD,	TG,	BW,	GH,		
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			KZ,																	
AU	AU 2006221285																			
CA	2599	2599879			A1	A1 20060914				CA 2006-2599879						2006031				
EP	1864	64665						EP 2006-729002												
	R:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EF	Ξ,	ES,	ΓI,	FR,	GB,	GR,	HU,	IE,		
							LV,													
US	US 20080113987					A1 20080515											20070830			
IN	IN 2007KN03220																			
	CN 101137382					A 20080305				CN 2006-80007888						20070911				
	KR 2007113285						2007													
IORIT	ORITY APPLN. INFO.:									JP	20	05-	5925	5		A 2	0050	311		
										wo	20	06-	JP30	4937		W 2	0060	313		
										wo	20	06-	JP49	37		A1 2	0060	313		

OTHER SOURCE(S): IT 866392-55-4P 866392-62-3P MARPAT 145:328368 866392-56-5P 866392-57-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(immunosuppressive agents and anti-tumor agents comprising heterocyclic compds.)

ANSWER 2 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)

866392-62-3 CAPLUS
1H-Benzimidazole, 2-(difluoromethyl)-1-[4-(2,2-dimethyl-4-morpholinyl)-6-(4-morpholinyl)-2-pyrimidinyl]-4-ethoxy- (CA INDEX NAME)

909300-31-8

866392-56-5 CAPLUS
1H-Benzimidazole, 2-(difluoromethyl)-1-[4-[(2R,3S)-2,3-dimethyl-4-morpholinyl]-6-(4-morpholinyl)-2-pyrimidinyl]-4-methoxy-, rel- (CA INDEX NAME)

Relative stereochemistry.

866392-57-6 CAPLUS

IH-Benzimidazole, 2-(difluoromethyl)-1-[4-[(2R,6R)-2,6-dimethyl-4-morpholinyl]-6-(4-morpholinyl)-2-pyrimidinyl]-4-methoxy-, rel- (CA INDEX NAME)

Relative stereochemistry.

ANSWER 2 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)

OS.CITING REF COUNT: RECORD THERE ARE 6 CAPLUS RECORDS THAT CITE THIS

(9 CITINGS)
THERE ARE 33 CITED REFERENCES AVAILABLE FOR REFERENCE COUNT:

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:1103774 CAPLUS
DOCUMENT NUMBER: 143:367324 CAPLUS

TITLE:

143:36/324
Preparation of
2-benzimidazolyl-4,6-dimorpholinylpyrimidine and
2-benzimidazolyl-4,6-dimorpholinyltriazine

derivatives

as antitumor agents Kawashima, Seiichiro; Matsuno, Toshiyuki; Yaguchi, Shinichi; Tsuchida, Yoshio; Saitoh, Kenichi; INVENTOR (S) .

Watanabe.

PATENT ASSIGNEE(S): SOURCE:

Tetsuo Zenyaku Kogyo Kabushiki Kaisha, Japan PCT Int. Appl., 19 pp. CODEN: PIXXD2 Patent Japanese 1 DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

	PATENT	KTN	D	DATE		APPLICATION NO.							DATE						
	WO 2005	A1		20051013			WO	2005-	JP61		20050330								
	W:	AE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BE	, BG,	BR,	BW,	BY,	BZ,	CA,	CH,		
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		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG	, MK,	MN,	MW,	MX,	MZ,	NA,	NI,		
		NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU	, SC,	SD,	SE,	SG,	SK,	SL,	SM,		
		SY,	TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG	us,	UZ,	VC,	VN,	YU,	ZA,	ZM,		
ZW																			
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		MR,	NE,	SN,	TD,	TG													
	AU 2005227954					A1 20051013				AU 2005-227954						20050330			
	CA 2561406				A1 20051013					CA	2005-		20050330						
	EP 1741714			A1 20070110				EP	2005-	7277		20050330							
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		IS,	IT,	LI,	LT,	LU,	MC,	NL,	PL,	PI	, RO,	SE,	SI,	SK,	TR				
	CN 1972935			A		20070530			CN	2005-	8001		20050330						
									KR 2006-722675										
US 20080287431					A1		2008	1120											
PRIORITY APPLN. INFO.:										JP	2004-	1032	73		A 2	0040	331		
										turo.	2005-	TD 6.1	11		ы o	0050	220		
										WO	2005-	OLOI	TT		w Z	0030	330		

OTHER SOURCE(S): IT 866392.54

R SOURCE(S): MARPAT 143:367324
866392-54-3P 866392-55-4P 866392-56-5P
866392-57-6P 866392-58-7P 866392-59-8P
866392-60-1P 866392-61-2P 866392-62-3P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of 2-benzimidazolyl-4,6-dimorpholinylpyrimidine

ANSWER 3 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)

866392-57-6 CAPLUS
1H-Benzimidazole, 2-(difluoromethyl)-1-[4-[(2R,6R)-2,6-dimethyl-4-morpholinyl]-6-(4-morpholinyl)-2-pyrimidinyl]-4-methoxy-, rel- (CA INDEX NAME)

Relative stereochemistry.

866392-58-7 CAPLUS

IH-Benzimidazole, 2-(difluoromethyl)-1-(4,6-di-4-morpholinyl-2-pyrimidinyl)-4-methoxy- (CA INDEX NAME)

L3 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN (Continued) and 2-benzimidazolyl-4,6-dimorpholinyltriazine derivs. as antitumor

and 2-benzimidazolyi-4,0-dimorpholinyitriazine derivs. as antitumor agents) 866392-54-3 CAPLUS HB-Benzimidazole, 2-(difluoromethyl)-1-[4-[(2R,68)-2,6-dimethyl-4-morpholinyl]-6-(4-morpholinyl)-2-pyrimidinyl]-4-methoxy-, rel- (CA INDEX NAME)

Relative stereochemistry.

866392-55-4 CAPLUS
1H-Benzimidazole, 2-(diffluoromethyl)-1-[4-(2,2-dimethyl-4-morpholinyl)-6-(4-morpholinyl)-2-pyrimidinyl)-4-methoxy- (CA INDEX NAME)

866392-56-5 CAPLUS

1H-Benzimidazole, 2-(difluoromethyl)-1-[4-[(2R,38)-2,3-dimethyl-4-morpholinyl]-6-(4-morpholinyl)-2-pyrimidinyl]-4-methoxy-, rel- (CA INDEX NAME)

Relative stereochemistry.

ANSWER 3 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)

866392-59-8 CAPLUS 1H-Benzimidazole, 2-(difluoromethyl)-1-[4-[(2R,6S)-2,6-dimethyl-4-morpholinyl)-6-(4-morpholinyl)-1,3,5-triazin-2-yl]-4-methoxy-, rel- (CA INDEX NAME)

Relative stereochemistry.

866392-60-1 CAPLUS

HB-Benzinidazole, 2-(difluoromethyl)-4-methoxy-1-[4-(4-morpholinyl)-6-(2,2,5,5-tetramethyl-4-morpholinyl)-1,3,5-triazin-2-yl]- (CA INDEX NAME)

L3 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)

866392-61-2 CAPLUS
1H-Benzimidazole, 2-(difluoromethyl)-1-(4,6-di-4-morpholinyl-2-pyrimidinyl)-4-ethoxy- (CA INDEX NAME)

866392-62-3 CAPLUS
1H-Benzimidazole, 2-(difluoromethyl)-1-[4-(2,2-dimethyl-4-morpholinyl)-6-(4-morpholinyl)-2-pyrimidinyl]-4-ethoxy- (CA INDEX NAME)

L3 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN (Continued) OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD

(4 CITINGS)

16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR REFERENCE COUNT: THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

EXR: Michael Barker